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NMMSS 2016 Annual Users Training Meeting

The Nuclear Materials Management and Safeguards System (NMMSS) 2016 Annual Users Training Meeting will be held May 9–12, 2016, in New Orleans, Louisiana.

The NMMSS is the U.S.

Government's official information system containing current and historical accounting data and other related nuclear material information collected from both government and commercial nuclear facilities. The information serves a critical role in aiding risk-informed decision making in areas related to regulatory functions, international programs, materials management, program management, and financial management.

The NMMSS 2016 four-day event provides a unique training and information sharing opportunity for Nuclear Regulatory Commission (NRC) licensees, the Department of Energy (DOE)/National Nuclear Security Administration (NNSA) Federal and contractor organizations, and other domestic and international entities with responsibility for tracking and reporting nuclear materials.

To register for the NMMSS 2016 training event, please click this [link](#). The block of rooms at the Marriott that was set aside for NMMSS 2016 training participants has sold out. We have checked with a few nearby hotels and found that the following still have rooms available at the government per diem rate of \$122.00 per night.

- Courtyard New Orleans Downtown/Iberville
<https://www.marriott.com/hotels/travel/msyci-courtyard-new-orleans-downtown-iberville/>
- Renaissance New Orleans Pere Marquette Hotel
<https://www.marriott.com/hotels/travel/msybr-renaissance-new-orleans-pere-marquette-hotel/>
- Hyatt Place New Orleans/Convention Center
<http://neworleansconventioncenter.place.hyatt.com/en/hotel/home.html>

If you need any assistance in making hotel accommodations, please contact [Alexandra Zeigler](#) by email or call her at (301) 515-9654.

There is no registration fee to participate in this valuable training opportunity. A training certificate will be provided to participants who take the NMMSS challenge exam.





Reminder: Changes at the Nuclear Regulatory Commission

Effective January 1, 2016, the Nuclear Regulatory Commission (NRC) has appointed Ms. Mirabelle Shoemaker as the NRC Project Manager for the NMMSS activities to replace Mr. Brian Horn, who retired from NRC in December 2015. Ms. Shoemaker will be at the NMMSS 2016 training event May 9-12, 2016 in New Orleans. This will be a great opportunity to meet with her in person. Meanwhile, you are encouraged to contact her (telephone (301) 415-7363, email address Mirabelle.shoemaker@nrc.gov) with questions related to NMMSS reporting and NRC regulatory requirements.



Imports of Uranium from Russia

Last year, imports of low enriched uranium arrived from the Russian Federation and were delivered to a number of licensed facilities. The licensed facilities contacted the NRC seeking clarification as to whether the low enriched uranium shipments contained uranium obligated to the Russian Federation. The Department of Energy contacted Russian officials and confirmed that, to date, none of the low enriched uranium shipped to the U.S. is Russian obligated.

The NRC has been informed that some shipments of low enriched uranium from the Russian Federation have Canadian and/or Australian obligated uranium. NRC will share any notifications of such proposed shipments with the receiving facilities.

The NRC wishes to remind industry that, as a general rule, it sends licensed facilities a copy of the official government-to-government communications stating that a proposed import is subject to an Agreement for Cooperation. The facility is then required to formally reply back to the NRC confirming that it will identify and track the nuclear material as obligated.

If you have any questions on this article or the process for identifying and tracking obligated material, please contact Mr. Santiago Aguilar at the NRC by email at Santiago.Aguilar@nrc.gov or by telephone at (301) 415-7918.





Erratum Sheet: NMMSS User Guide 2.0, Page 2-5, Table 2-3. -- Material Type 81

The table below shows a correction to the assay range for Normal Uranium in Table 2-3 in the NMMSS Users Guide, Rev. 1, dated April 1, 2013. We thank Karen McCulloch from the DOE Portsmouth Site for identifying this error.

MT Code	Type Description	Reporting Unit	MT Code	Type Description	Reporting Unit
	Uranium Depleted in U-235		44	Americium-241	gm
10	Total		45	Americium-243	gm
11	<0.21% U-235	kg	46	Curium	gm
12	0.21 to < 0.24% U-235	kg	48	Californium	microgram
13	0.24 to < 0.26% U-235	kg		Plutonium	
14	0.26 to < 0.28% U-235	kg	50	Total	gm
15	0.28 to < 0.31% U-235	kg	51	< 4.00% Pu-240	gm
16	0.31 to < 0.50% U-235	kg	52	4.00 < 7.00% Pu-240	gm
17	0.50 to < 0.60% U-235	kg	53	7.00 < 10.00% Pu-240	gm
18	0.60 to < 0.710% U-235	kg	54	10.00 < 13.00% Pu-240	gm
	Uranium Enriched in U-235		55	13.00 < 16.00% Pu-240	gm
20	Total		56	16.00 < 19.00% Pu-240	gm
21	> 0.712 to < 0.90% U-235	gm	57	19.00% and above Pu-240	gm
22	0.90 to < 1.15% U-235	gm		Lithium Enriched in Li-6	
23	1.15 to < 1.60% U-235	gm	60	Total	kg
24	1.60 to < 2.00% U-235	gm	61	>Normal (7.42%) to < 55.00%	kg
25	2.00 to < 2.60% U-235	gm	62	55.00 to < 80.00%	kg
26	2.60 to < 2.90% U-235	gm	63	80.00% and above	kg
27	2.90 to < 3.10% U-235	gm		Uranium Enriched in U-233	
28	3.10 to < 3.40% U-235	gm	70	Total	gm
29	3.40 to < 3.90% U-235	gm	71	< 5 ppm U-232	gm
30	3.90 to < 4.10% U-235	gm	72	5 to < 10 ppm U-232	gm
31	4.10 to < 5.00% U-235	gm	73	10 to < 50 ppm U-232	gm
32	5.00 to < 10.00% U-235	gm	74	50 ppm and above U-232	gm
33	10.00 to < 20.00% U-235	gm	81	Normal Uranium	
34	20.00 to < 35.00% U-235	gm		Total	
35	35.00 to < 45.00% U-235	gm		0.710 to ≤ 0.712% U-235	kg
36	45.00 to < 80.00% U-235	gm	82	Neptunium-237	gm
37	80.00 to < 92.00% U-235	gm	83	Plutonium-238 (Pu-238)	gm to tenth
38	92.00 to < 94.00% U-235	gm	86	Deuterium (D2) Total	kg to tenth
39	94.00% and above U-235	gm	87	Tritium Total	gm to hundredth
	Plutonium-242		88	Thorium Total	kg
40	Total	gm	89	U in Cascades Total	gm
41	20% thru 60%	gm	90	This series is available for local use	
42	> 60%	gm			

gm=gram, H-3=tritium, kg=kilogram, MT=material type



NRC Reconciliation – Material Status Reports Are Almost Due!

Most NRC licensees report their material balances to NMMSS by December 31st each calendar year; however, the deadline for submitting Material Status Reports, per NUREG-007, Rev. 6, is March 31st of the following year. Consequently, the first quarter of each calendar year is typically a busy period for NMMSS reconciliation of NRC licensees. So far this calendar year, NMMSS has received Material Status Reports from 255 licensees. For those licensees that are still preparing their reports, here are a few tips to keep in mind for successfully reporting material balance and inventory information to NMMSS:

- Licensees are required to submit a Material Status Report (MSR) when:
 - The facility possesses* one gram (≥ 0.5 g) or more of special nuclear material (SNM) (see the shaded rows in the table below); OR
 - The facility possesses one kilogram (≥ 0.5 kg) or more of foreign obligated source material (see the unshaded rows in the table below); OR
 - The facility imports or exports 1 kg (rounded to the nearest kg) or more of source material.

*The term “possess” indicates that a facility shipped or received a reportable quantity during the material balance reporting period, even if the ending inventory is 0.

Material	Material Type	Reporting Unit (rounded up)	Weight that is Reported
Enriched uranium*	20	Whole gram	Element and isotope
Plutonium	50	Whole gram	Element and isotope
Uranium-233	70	Whole gram	Element and isotope
Plutonium-238	83	Tenth of a gram	Element and isotope
Depleted uranium	10	Whole kilogram	Element and isotope
Normal uranium	81	Whole kilogram	Element only
Thorium	88	Whole kilogram	Element only

*Assay Levels of Enriched Uranium (from NUREG/BR-0007, Rev. 6)

Report enriched uranium by assay level (see below) on separate MBR forms.

- E-1** Greater than normal but less than 5%
- E-2** 5% or more, but less than 20%
- E-3** 20% or more, but less than 80%
- E-4** 80% or more

- All Government-owned material is reportable per NUREG/BR/0006, Rev. 7, including all SNM, source material, and other materials listed in the Reportable Elements and Isotopes section of the NMMSS User's Guide.
- Enriched uranium is reported by assay level (see list above).
- Licensees who possess less than 350 grams of SNM are required to report their physical inventory to NMMSS between January 1 and March 31 of each year.
- Licensees possessing 350 grams or more of SNM must report a physical inventory to NMMSS at least annually (10 CFR §19).
 - Fillable Forms 742 and 742C are posted on the NMMSS website: <http://nnsa.energy.gov/about/ourprograms/nuclearsecurity/nmmsshome/nmmssinfo/doenrcforms>.
 - The forms are also posted on the NRC website: <http://www.nrc.gov/reading-rm/doc-collections/forms>.
- NMMSS analysts are always available to answer questions or provide assistance with the preparation of Material Status Reports. For questions or help, please contact a NMMSS analyst (see the points of contact at the end of this newsletter).

For NRC regulatory questions, please contact Mirabelle Shoemaker at 301-415-7363, mirabelle.shoemaker@nrc.gov.

Upcoming NMMSS II Training Course for DOE

The DOE NMMSS II (MCA-212) training course is scheduled to be held **June 7-9, 2016**, in Paducah, Kentucky. This training addresses topics and report products associated with nuclear materials accounting as they apply to NMMSS. Participants are also encouraged to share NMMSS-related issues and potential problems they may currently be experiencing. The DOE NMMSS I course (MCA-112) is the prerequisite for the DOE NMMSS II training course.

The desired class size is 12 participants or less. A minimum of 6 is required to conduct the class. You may register for the class by contacting John Ballard at (301) 903-0092, or by email at John.Ballard@nnsa.doe.gov, and providing him with your name, nationality, job title, facility name, address, telephone number, and email address. Students must also register for the class with the NTC at <https://ntc.doe.gov/default.aspx>. There are no training fees for this course.

If interested, please contact John Ballard by May 15, 2016.



Upcoming NMMSS Training Courses for NRC

NMMSS training for NRC licensees and Federal employees is scheduled for **July 12-14, 2016**, at DOE Headquarters in Germantown, MD. This course is designed for individuals with limited experience in NRC reporting requirements or those who need a refresher. The course content is based on NUREG/BR-0006, Rev. 7 and NUREG/BR-0007, Rev. 6. The following topics, among others, will be included:

- Completion of data forms: transactions, inventory, and material balance;
- Inventory reconciliation;
- Foreign obligations reporting; and
- Report products.

The desired class size is 10 participants or less. A minimum of 6 is required to conduct the class. You may register for the class by contacting John Ballard at (301) 903-0092, or by email at John.Ballard@nnsa.doe.gov, and providing him with your name, nationality, job title, facility name, address, telephone number, and email address. Due to security requirements for entering the DOE Germantown facility, all potential students who are not U.S. citizens MUST register for this workshop at least 45 days prior to the instruction dates. There are no training fees for this course.

If interested, please contact John Ballard by June 30, 2016.

Upcoming NMMSS I Training Courses for DOE

The DOE NMMSS I (MCA-112) training course is scheduled for **September 12-15, 2016**, at the DOE Savannah River Site in Aiken, SC. This course is designed for personnel who have less than two years' experience in nuclear materials accounting.

The desired class size is 12 participants or less. A minimum of 6 is required to conduct the class. You may register for the class by contacting John Ballard at (301) 903-0092, or by email at John.Ballard@nnsa.doe.gov, and providing him with your name, nationality, job title, facility name, address, telephone number, and email address. Students must also register for the class with the National Training Center (NTC) at <https://ntc.doe.gov/default.aspx>. There are no training fees for DOE personnel or DOE contractors.

If interested, please contact John Ballard by August 31, 2016.

Recent NRC Reconciliation Success

Thank you to NRC licensees for a fantastic job in submitting 2015 material balance information accurately and on time! As part of our ongoing responsibility to the NRC, and with the support of the licensee community, NMMSS analysts completed 357 reconciliations during calendar year 2015.

NMMSS staff is pleased to report the following performance metrics, current as of February 2016:

- 317 of 322 RISs (98.4%) reported for calendar year 2014 and have been reconciled.
- Of the 144 licensees that report for period ending December 31, 80 sites (55.6%) have already submitted and been reconciled.
- 5 RISs reported for the first time for 2015 and were reconciled.
- 255 licensees have already reported for the 2015 reporting period and been reconciled.

Licensees wishing to return excess government-owned nuclear materials, please notify Pete Dessaules at (301) 903-4525 or Pete.Dessaules@nnsa.doe.gov.



Available NMMSS Products

NMMSS staff has recently updated the following documents that are available to NMMSS users.

- D-2: **DOE Directory of Reporting Identification Symbols (RIS)**. This directory contains a listing of RISs for the DOE sites that NMMSS accepts as valid as of March 2015.
- D-3: **NRC Directory of Reporting Identification Symbols (RIS)**. This directory contains a listing of RISs for the licensed sites that NMMSS accepts as valid as of March 2015.
- D-15: **International Nuclear Facilities**. This directory contains a listing of RISs for nuclear sites located outside of the United States that NMMSS accepts as valid as of March 2015.

SAfeguards Management Software (SAMS): SAMS is a facility-based version of the NMMSS software maintained by DOE and NRC. The latest update, Version 8.0, of the SAMS software package lets users input data and perform edit checks for transactions, material balance reports, and inventories, and includes an updated Authority Reference File.

Copies of the above items are available free of charge. Please contact any member of the NMMSS staff, or send a request to the NMMSS mailbox (NMMSS@nnsa.doe.gov) if you would like any of the above items sent to you.

NMMSS Website Updates

- NMMSS Users Meeting 2016: <http://nnsa.energy.gov/aboutus/ourprograms/nuclearsecurity/nmmsshome>
- Updated DOE/NRC Forms 740M, 741,742, and 742C, both PDF and fillable PDF:
<http://nnsa.energy.gov/aboutus/ourprograms/nuclearsecurity/nmmsshome/nmmssinfo/doenrcforms>
<http://nnsa.energy.gov/aboutus/ourprograms/nuclearsecurity/nmmsshome/nmmssinfo/fillableforms>
- Schedule of Upcoming Training in 2016:
<http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/Upcoming%20NMMSS%20Training%20October%202016.pdf>

Transaction/Inventory Due Dates for DOE Sites

Reporting Month	Transaction Due	Inventory Due
February 2016	March 10	March 15
March 2016	April 11	April 15
April 2016	May 10	May 16
May 2016	June 10	June 15
June 2016	July 12	July 15
July 2016	August 10	August 15
August 2016	September 12	September 15
September 2016	October 11	October 17

Upcoming 2016 Observed Holidays

Memorial Day	Monday, May 30
Independence Day	Monday, July 4
Labor Day	Monday, September 5
Columbus Day	Monday, October 10
Veterans Day	Friday, November 11
Thanksgiving Day	Thursday, November 24
Christmas Day	Monday, December 26



NMMSS Points of Contact For Nuclear Material Reporting Technical Support and Assistance

Name	Topic	Phone	Email Address
Karen Antizzo	General Data Submission NMMSS Reports IAEA Reporting	(301) 903-0872	Karen.Antizzo@nnsa.doe.gov
John Ballard	DOE/NNSA Reconciliation Training SAMS Software	(301) 903-0092	John.Ballard@nnsa.doe.gov
Elaine Beacom	Foreign Obligations International Reporting	(301) 903-1328	Elaine.Beamom@nnsa.doe.gov
Carl Berger	General Inquiries Special Data Requests	(301) 903-3656	Carl.Berger@nnsa.doe.gov
Mitch Hembree	Special Data Requests Foreign Obligations	(301) 903-6299	Mitch.Hembree@nnsa.doe.gov
Gary Hirsch	IAEA Selected Facilities NMMSS Software Inquiries	(301) 903-6870	Gary.Hirsch@nnsa.doe.gov
Mark Huffman	NRC Licensee Reconciliation Licensee Data	(301) 903-0236	Mark.Huffman@nnsa.doe.gov
Mary McConnell	NRC Licensee Reconciliation Licensee Issues	(301) 903-6240	Mary.McConnell@nnsa.doe.gov

Program Management

Department of Energy

Peter Dessaulles (301) 903-4525
Pete.Dessaulles@nnsa.doe.gov

Nuclear Regulatory Commission

Mirabelle Shoemaker (301) 415-7363
Mirabelle.shoemaker@nrc.gov

International POC

DOE International POC

Leigh Gunn (301) 903-7431
Leigh.Gunn@nnsa.doe.gov

NRC International POC

Santiago Aguilar (301) 415-7918
Santiago.Aguilar@nrc.gov

Email: NMMSS@nnsa.doe.gov
Unclassified Fax: (301) 903-1998
www.nnsa.energy.gov/nmmss

Unclassified/Overnight Surface Mailing Addresses

Unclassified

Karen Antizzo

NMMSS Program, NA-532/Germantown Bldg.
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1290

Overnight – Unclassified

Karen Antizzo

Attn: NMMSS Program, NA-532
U.S. Department of Energy
19901 Germantown Road
Germantown, MD 20874-1207

Classified

The NMMSS classified mailing address is available on the Safeguards and Security Information Management System (SSIMS) or by calling a NMMSS analyst. Identify Karen Antizzo as the recipient and NA-532 as the organization.

IMPORTANT: The “DO NOT X-RAY” marking does not prevent incoming packages from being sanitized. Please package compact discs (CDs) in cardboard rather than plastic casings. The plastic is heated by the sanitization machine, thereby warping the CD. There is less chance of this occurring if the CD is packaged in cardboard.

For information on transmitting classified data to NMMSS electronically, contact Pete Dessaulles at (301) 903-4525 or Pete.Dessaulles@nnsa.doe.gov.

NMMSS News is sponsored by the Department of Energy (POC: Pete Dessaulles, Pete.Dessaulles@nnsa.doe.gov, (301) 903-4525) and the Nuclear Regulatory Commission (POC: Mirabelle Shoemaker (301) 415-7363, Mirabelle.Shoemaker@nrc.gov). Please provide feedback or suggested topics of interest to Karen Antizzo at Karen.Antizzo@nnsa.doe.gov, (301) 903-0872.